

The Virginia Joint Commission

JCOTS

on Technology and Science

Electronic Identity Management Advisory Committee

Data Analytics Overview

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THE
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TO KNOW.

Definition

- Analytics is a *methodology* for the *discovery* and *communication* of meaningful patterns in data enabling organizations to optimize performance, process, and decisions
- Relies on the simultaneous application of statistics, *mathematical modeling*, and computer programming
- Enables organizations to maximize the value of enterprise data and practice *evidence based decision making*

Analytics

A wide range of capabilities

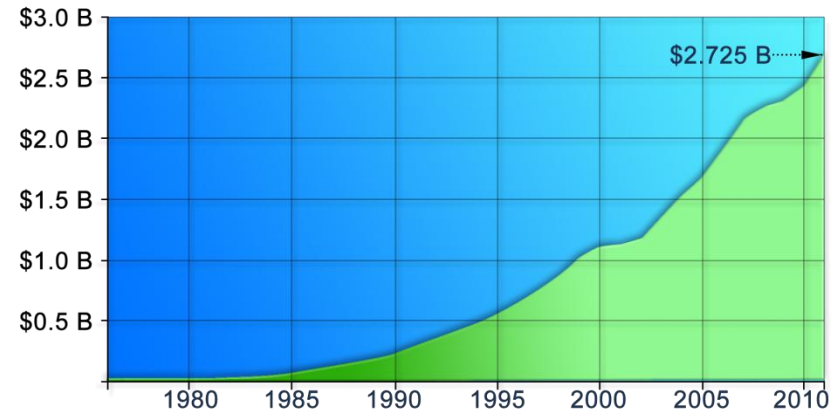


SAS: A Company Built on Analytics

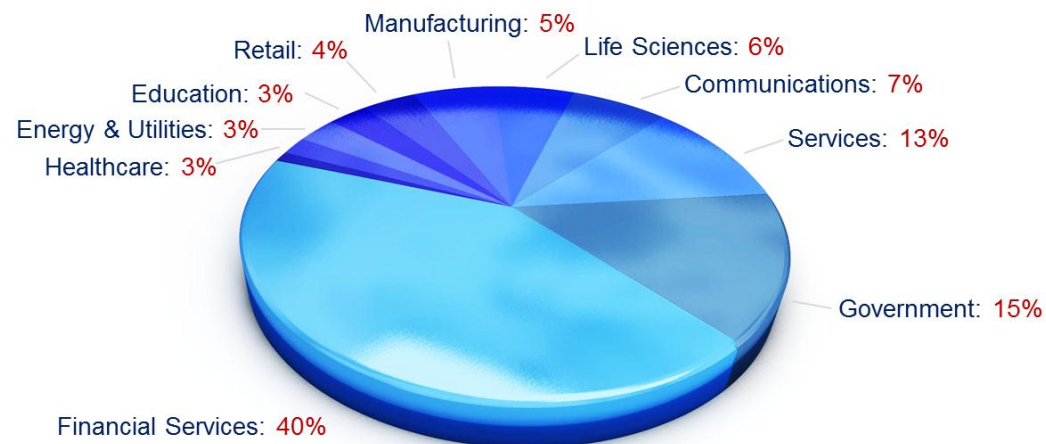
- 2011 Results: 7% increase to \$2.725B
- Largest privately-held software company in the world
- 24% Reinvestment in R&D



- Over 13,000 employees
- 4.5 million users worldwide
- 47,000+ sites in 110+ countries
- 98 of the Fortune 100
- Over 1,000 Universities



- 90%+ of the US Federal Agencies
- All 50 US State Governments



Practical Application in Government

- *Improving Educational Outcomes:* student growth and teacher effectiveness
- *Improving Financial Outcomes:* budgeting, forecasting, revenue optimization, and investment management
- *Improving Compliance and Program Integrity:* fraud detection, premium evasion, and oversight
- *Improving Public Safety:* resource optimization, rapid detection/investigation, and reducing recidivism

Practical Application in Government

- *Improving Citizen Health:* outcome analysis, cost containment, and informed policy/practice
- *Improving Environmental Outcomes:* impact analysis, forecasting, and scenario modeling
- *Improving Transportation:* predictive asset maintenance, demand forecasting, and planning
- *Improving Social Service Programs:* outcome management, risk prioritization, and investment mix

Practical Application in Virginia: HHR

- Office of Comprehensive Services-
Administration of the Comprehensive Services Act
- *increase accountability* for the expenditure of funds and to *identify outcomes* for youth realized as a result of services provided and funds expended
- will enable both the Commonwealth and localities to identify the services, and service providers, that will produce the *best outcomes* for its high-risk youth

Practical Application in Virginia: HHR

- Are services available to the children who need them?
- Are services being provided in accordance with each child's needs?
- Are funds for services being spent wisely?
- To what extent is each program meeting the goals for that program based on the availability of services, each child's needs, and the funds for those services?



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